



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

September 2, 2014

Mr. Timothy S. Rausch
Senior Vice President and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Boulevard, NUCSB3
Berwick, PA 18603

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SUSQUEHANNA STEAM
ELECTRIC STATION, UNITS 1 AND 2 (REPORT 05000387/2014006 AND
05000388/2014006)**

Dear Mr. Rausch:

On August 12, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Susquehanna Steam Electric Station (Susquehanna) Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2013 through June 30, 2014. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined the performance at Susquehanna Unit 1 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs demonstrated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct Reactor Oversight Process baseline inspections at Susquehanna Unit 1.

The NRC determined that performance at Susquehanna Unit 2 at the end of the second quarter remained in the Degraded Cornerstone Column of the NRC's ROP Action Matrix because two white PIs (for unplanned scrams (shutdowns) per 7,000 hours of operation and for unplanned scrams with complications) existed in the initiating events cornerstone in the third quarter of 2013. Although these two white PIs returned to the nominal, expected range (i.e., green) in the fourth quarter of 2013, completion of a supplemental inspection in accordance with Inspection Procedure (IP) 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area," and the conduct of a public regulatory performance meeting are required to return Susquehanna Unit 2 performance to the Licensee Response Column. On May 29, 2014, your staff notified NRC of your readiness for this IP 95002 inspection. On July 31, 2014, the NRC satisfactorily completed the IP 95002 inspection and communicated the results of this inspection to your staff. After a public exit and regulatory performance meeting, scheduled for September 3, 2014, the NRC will provide you a follow-up assessment of Susquehanna Unit 2 for the third quarter of 2014.

As a result of the Safety Culture Common Language Initiative, the terminology and coding of cross-cutting aspects were revised. All cross-cutting aspects identified during inspections conducted in calendar year 2014 will reflect this revision to Inspection Manual Chapter (IMC) 0310. Cross-cutting aspects identified in 2013 using the 2013 terminology were converted to the latest revision in accordance with the cross-reference in IMC 0310 during the mid-cycle assessment review and evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305.

The enclosed inspection plan lists the inspections scheduled through December 31, 2015. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle performance review. In addition to baseline inspections, the NRC will perform Inspection Procedure (IP) 60855.1, "Operation of an ISFSI at Operating Plant." The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

From January 1 to December 31, 2013, the NRC issued three severity level IV traditional enforcement violations associated with willfulness. Therefore, the NRC plans to conduct IP 92723, "Follow-up Inspection of Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period," to follow-up on these violations when your staff notifies the NRC of your readiness.

Additionally, during this assessment period the NRC issued an inspection report dated August 1, 2014, (ADAMS Accession No. ML14216A216) which documented a Green violation related to PPL's failure to restore compliance of a previously identified issue. As a result, the NRC plans to conduct IP 92702, "Followup on Corrective Actions for Violations and Deviations," to follow-up on your actions related to the Notice of Violation. The NRC plans to perform IP 92702 when your staff has notified us of your readiness for this inspection.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," which requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," which requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. This audit includes an onsite component in order for the NRC to evaluate licensee plans for complying with the Orders, as described in site-specific submittals, and to receive and review information relative to associated open items. This onsite activity will occur in the months prior to a declaration of compliance for the first unit at each site, and will aid staff in development of an ultimate Safety Evaluation for the site. The date for the onsite component at your site has been coordinated with your staff and has been scheduled for the week of December 8, 2014. A site-specific audit plan for the visit will be provided in advance to allow sufficient time for preparations.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Part 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of the NRC's Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact Fred L. Bower, III at (610) 337-5200 with any questions you have regarding this letter.

Sincerely,

/RA/

William M. Dean
Regional Administrator

Docket Nos.: 50-387; 50-388
License Nos.: NPF-14, NPF-22

Enclosure: Inspection Plan

cc w/encl: Distribution via ListServ

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ADAMS Accession No.: **ML14239A210**

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRP	RI/DRP	RI/DRP	RI/DRP	RI/ORA
NAME	JGreives/GSB for*	SBarber/GSB*	FBower/FLB*	HNieh/MLS for*	WDean/WMD
DATE	08/22/14	08/22/14	08/25/14	08/26/14	08/ 29/14

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*see prior concurrence

Susquehanna
Inspection / Activity Plan
07/01/2014 - 12/31/2015

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
8/11EXAM - INITIAL OL EXAM					
					4
1	07/14/2014	07/18/2014	U01896	FY14-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
1	08/11/2014	08/22/2014	U01896	FY14-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
95002 - 95002 SUPPL INSP FOR IE DEGRADED CNRST					
					7
2	07/14/2014	07/18/2014	IP 95002	Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Perfor	
2	07/28/2014	08/01/2014	IP 95002	Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Perfor	
TRI FI - TRIENNIAL FIRE PROTECTION					
					6
1, 2	08/04/2014	08/08/2014	IP 7111105T	Fire Protection [Triennial]	
1, 2	08/18/2014	08/22/2014	IP 7111105T	Fire Protection [Triennial]	
ISFSI - ISFSI LOADING INSPECTION					
					2
1, 2	08/25/2014	08/29/2014	IP 60855	Operation Of An ISFSI	
1, 2	08/25/2014	08/29/2014	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
71124 - RADIATION SAFETY RAD INSTS					
					1
1, 2	09/22/2014	09/26/2014	IP 71124.05	Radiation Monitoring Instrumentation	
71124.08 - RADWASTE					
					1
1, 2	10/06/2014	10/10/2014	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
EP EXER - EP EXERCISE INSPECTION					
					2
1, 2	10/20/2014	10/24/2014	IP 7111407	Exercise Evaluation - Hostile Action (HA) Event	
71124 - RADIATION SAFETY					
					1
1, 2	11/03/2014	11/07/2014	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	11/03/2014	11/07/2014	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	11/03/2014	11/07/2014	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	11/03/2014	11/07/2014	IP 71124.04	Occupational Dose Assessment	
7111107T - TRIENNIAL HEAT SINK					
					1
1, 2	02/23/2015	02/27/2015	IP 7111107T	Heat Sink Performance	
8/17EXAM - INITIAL OL EXAM					
					3
1	07/20/2015	07/24/2015	U01916	FY15-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
1	08/17/2015	08/28/2015	U01916	FY15-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
7111108G - U2 INSERVICE INSPECTION					
					1
2	04/20/2015	04/24/2015	IP 7111108G	Inservice Inspection Activities - BWR	
71124 - RAD SAFETY INSPECTION					
					1
1, 2	04/27/2015	05/01/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	04/27/2015	05/01/2015	IP 71124.02	Occupational ALARA Planning and Controls	

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Susquehanna
Inspection / Activity Plan
07/01/2014 - 12/31/2015

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
71124 - RAD SAFETY INSPECTION					
1, 2	04/27/2015	05/01/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	1
1, 2	04/27/2015	05/01/2015	IP 71124.04	Occupational Dose Assessment	
1, 2	04/27/2015	05/01/2015	IP 71151	Performance Indicator Verification	
71124.07 - RAD SAFETY INSPECTION					
1, 2	06/15/2015	06/19/2015	IP 71124.07	Radiological Environmental Monitoring Program	1
1, 2	06/15/2015	06/19/2015	IP 71151	Performance Indicator Verification	
71124 - RAD SAFETY INSPECTION					
1, 2	08/17/2015	08/21/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	1
1, 2	08/17/2015	08/21/2015	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	08/17/2015	08/21/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	08/17/2015	08/21/2015	IP 71124.04	Occupational Dose Assessment	
711111B - REQUAL INSP W/ P/F RESULTS					
1, 2	10/26/2015	10/30/2015	IP 711111B	Licensed Operator Requalification Program	2
MODS - PERMANENT PLANT MODIFICATIONS					
1, 2	09/14/2015	09/18/2015	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	4
1, 2	09/28/2015	10/02/2015	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
71124 - RAD SAFETY INSP					
1, 2	10/05/2015	10/09/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	1
1, 2	10/05/2015	10/09/2015	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	10/05/2015	10/09/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	10/05/2015	10/09/2015	IP 71124.04	Occupational Dose Assessment	
EP - EP PROGRAM INSPECTION					
1, 2	10/26/2015	10/30/2015	IP 7111402	Alert and Notification System Testing	1
1, 2	10/26/2015	10/30/2015	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	10/26/2015	10/30/2015	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	